

**REMARKS**

**I. Introduction**

In response to the June 9, 2008 Office Action, Applicant has cancelled claim 1, without prejudice. Claim 2 has been rewritten in independent format. Claims 3-7 have been amended to show proper claim dependency. No new matter has been added.

For the reasons set forth below, Applicant respectfully submits that all pending claims are patentable over the cited prior art references.

**II. The Rejection Of Claims 1, 2, 4, 6, 10 and 12 Under 35 U.S.C. § 103**

Claims 1, 2, 4, 6, 10 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kessler (USP No. 4,406,590) in view of Turley (USP No. 2,838,941). As claim 1 has been cancelled, Applicants will discuss the rejections of claim 2. Applicants respectfully submit that Kessler and Turley fail to render the pending claims obvious for at least the following reasons.

With regard to the present invention, claim 2 recites, in-part, a hermetic compressor comprising...a compression element comprising: a shaft having an eccentric shaft body and a main shaft body; a piston moving reciprocally in the compression chamber; a balance weight formed on the shaft, wherein supposing axial center of the main shaft body to be origin, x-coordinate and y-coordinate of the portion of the outer circumference of the balance weight closest to the piston are substantially expressed as follows:

$$\begin{aligned}x &= [s \cdot \cos (360^{\circ} - \theta) + L \cdot \cos \{ \sin^{-1} (s \cdot \sin (360^{\circ} - \theta) / L) \} + C - \alpha] \cdot \cos (360^{\circ} - \theta) \\y &= [s \cdot \cos (360^{\circ} - \theta) + L \cdot \cos \{ \sin^{-1} (s \cdot \sin (360^{\circ} - \theta) / L) \} + C - \alpha] \cdot \sin (360^{\circ} - \theta)\end{aligned}$$

where  $s$ : distance between axial center of main shaft body and axial center of eccentric shaft body,

$L$  : pitch length of connecting means,

$C$  : skirt length of piston,

$\alpha$  : distance between outer circumference of balance weight and piston, and

$\theta$  : rotation angle of eccentric shaft body.

It is alleged that Kessler teaches a balance weight the shape of which meets the criteria for the above equation. The rationale for this allegation is cited in the Office Action on page 4 which states “since Kessler teaches the same configuration and the elements as discussed have the same spatial relationship as the instant application, a value for each of the variables listed in the x and y coordinate expressions can be determined. Therefore, the x and y coordinates of the outer circumference of the balance weight of Kessler 234 can be expressed by the equations as discussed.”

This allegation is demonstrably false. Foremost, there is no teaching or suggestion in Kessler that the balance weight of Kessler teaches the same configuration and the elements as discussed in claim 1. The Examiner has merely alleged this without any supporting evidence other than simply saying it is so. Furthermore, even if assuming *arguendo* that Kessler did in fact disclose this limitation, there is still no indication that Kessler would meet the criteria of the equation in claim 2. Claim 2 is more narrow than claim 1, as evidenced by the fact that claim 2 was dependent upon claim 1. As such, one cannot assume that if a prior art reference discloses limitations of a broad claim that it inherently discloses the limitations of a narrower claim. Therefore, the suggestion that if Kessler teaches the limitations of claim 1, then claim 2 is obvious, is false.

Moreover, Turlay is not relied upon to remedy this deficiency. The Examiner alleges that Turlay teaches that the counterweights... will clear by a constant amount the lower ends of the pistons 23. However, as is clearly shown in Figs. 1-3 of Turlay, the distance between the outer periphery of the balance weight 53 and the piston 23 is not the same. In Fig. 2, the distance between the piston and balance weight is much closer than in either of Figs. 1 and 3. Thus, it is clear that Turlay fails to disclose the limitations of claim 1, much less disclose the above mentioned formula of claim 2.

Therefore, as is well known, in order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. As Kessler and Turlay, at a minimum, fail to teach or suggest a hermetic compressor comprising...a compression element comprising: a shaft having an eccentric shaft body and a main shaft body; a piston moving reciprocally in the compression chamber; a balance weight formed on the shaft, wherein supposing axial center of the main shaft body to be origin, x-coordinate and y-coordinate of the portion of the outer circumference of the balance weight closest to the piston are substantially expressed in the formula recited in claim 2, it is submitted that Kessler and Turlay, alone or in combination, do not render claim 2, or any pending claims dependent thereon, obvious.

**III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable**

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 2 is patentable for the reasons

set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

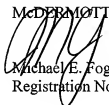
**IV. Conclusion**

Having responded to all open issues set forth in the Office Action, it is respectfully submitted that all claims are in condition for allowance.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Michael E. Fogarty  
Registration No. 36,139

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
Phone: 202.756.8000 MEF/NDM:kap  
Facsimile: 202.756.8087  
Date: **September 9, 2008**

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